

**REMARKS**

Claims 1-12 were examined in the Office Action mailed September 1, 2009.

The following objections and rejections are currently pending:

- Rejection of claims 6 and 11 under 35 U.S.C. § 112, second paragraph, as indefinite, where “matched repair stations” in claim 6 is identified as unclear, and “before being disassembled” in claim 11 is identified as lacking antecedent basis.
- Claims 1, 9-10 and 12 stand rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,193,272 to Wortmann, *et al.* (“Wortmann”).
- Claims 1-4, 6-10 and 12 stand rejected under § 102(b) as anticipated by U.S. Patent No. 5,285,572 to Rathi, *et al.* (“Rathi”).
- Claims 1-5, 7-10 and 12 stand rejected under § 102(b) as anticipated by a handbook, *Turbomachinery Maintenance Handbook*, technical document no. CP-002294741 (“Sawyer”).
- Claims 1-3, 5 and 12 stand rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent Publication No. 2006/0272152 (“Burmeister”).
- Claims 5 and 11 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Rathi.
- Claims 5 [sic, 6] and 11 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Sawyer.
- Claims 1-3, 5 and 12 stand provisionally rejected under 35 U.S.C. § 101 as claiming the same invention as that of claims 20 and 22 of co-pending Application No. 10/554,471 (corresponding to the above-noted Burmeister publication, with different inventors).
- Claims 1-12 stand provisionally rejected under the doctrine of non-statutory obviousness-type double patenting over claims 20-38 of the co-pending Burmeister application.

**1. The § 112 Rejections Are Addressed.** In response to the antecedent basis issue in claim 11, the Applicant has amended claim 1 to recite disassembly of the gas turbines, thereby providing antecedent basis for the claim 11 term,

without introducing new matter. Reconsideration and withdrawal of this § 112 rejection is respectfully requested.

As to claim 6's use of the term "matched repair stations," the Applicant in the original Specification described the novel application of "conveyer belt" to gas turbine maintenance and repair in terms of multiple repair stations which are equipped to handle the specific work associated with the stations. *See, e.g.*, Specification ¶ [0010] ("Two or more repair steps are preferably carried out in succession within one repair line, with the modules and/or assemblies and/or individual parts being moved on a cycle, that is to say discontinuously, to *matched repair stations* in order to carry out the repair steps."); ¶ [0025] ("*Each of the repair stations is matched to the repair step to be carried out*, such that tools and materials which are required for the work are provided at the repair station.") (all emphasis added).

The Applicant submits that, when viewed in the context of the original Specification as required, one of ordinary skill in the art would unquestionably understand that "matched repair stations" refers to repair stations equipped to perform specific tasks, *i.e.*, "matched" to the work to be performed. Accordingly, the Applicant submits that because claim 6's recitation of "matched repair stations" is clear when read in the proper context, the pending § 112 rejection should be reconsidered and withdrawn.

**2. The Burmeister Reference Is Not § 102(e) Prior Art.** The Applicant respectfully requests the § 102(e) rejection based on the Ser. No. 10/554,471 application be withdrawn, on the ground that Burmeister is not prior

art to the present application. Both the present application and the Burmeister application have the same filing dates – the corresponding German applications were both filed on April 27, 2003, both PCT applications were filed on March 24, 2004, and both U.S. filings were on October 24, 2005. Because the Burmeister application was not “described in ... an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent,” the Burmeister application is not § 102(e) prior art to the present application.

**3. The Claims Are Patentable Over Wortmann, Rathi and Sawyer.**

The Applicant respectfully traverses the rejections of the claims based on the Wortmann, Rathi and Sawyer references, on the grounds that these reference do not disclose or suggest all of the features of the present invention recited in the pending claims.

Wortmann and Rathi. As noted above, the present invention is directed to a novel process for maintenance and repair of gas turbines, in particular aeroengines. In the prior art “the maintenance and servicing of gas turbines ... has been based on the so-called workshop principle” in which the gas turbine “remains ... at one position or at one location” and “[t]he material, tools and personnel required to carry out the work are made available” to the turbine’s location. Specification ¶ [0004]. The prior art approach, however, had several disadvantages, including “that the maintenance process does not follow a defined structure” and due to “disturbances and delays” (for example, unforeseen problems identified during each gas turbine’s disassembly) “long times are

required for maintenance and for servicing.” *Id.* ¶ [0005]. In contrast, the present invention “has overcome the previous prejudice that the conveyor belt principle is suitable only for new production of gas turbines, in particular aeroengines, but is not suitable for repairing them,” in part because “[i]n contrast to new production, the required work steps are not always the same for repairing gas turbines, in particular aeroengines, but are always dependent on the specific condition of the aeroengine to be repaired.” *Id.* ¶ [0008].

Both Wortmann and Rathi are directed solely to work on individual parts of a turbine – casting replacement portions for a single damaged turbine blade in Wortmann, and in Rathi machining a part “such as a vane of a vane segment of a nozzle ring in a gas turbine engine.” Thus, neither of these references disclose (or even suggest) a method for maintenance of *gas turbines*, wherein “the gas turbines are disassembled into modules and/or assemblies and/or individual parts,” “the modules and/or assemblies and/or individual parts are repaired in different repair lines containing repair stations, with a decision on the repair line to which a module and/or assembly and/or individual part to be repaired will be sent being made after inspection of the modules and/or assemblies and/or individual parts” and/or “are moved discontinuously on a cycle through the repair stations or the repair lines”

Sawyer. For its part, the Sawyer reference is cited as disclosing claim 5’s (now amended claim 1’s) movement “discontinuously on a cycle, through the repair stations or the repair lines,” specifically quoting Sawyer at the second column of page 5-45 for the teaching that “Some parts are directly reusable, some

must be scrapped and replaced and others which are still serviceable may be restored to original tolerances.” September 1, 2009 Office Action at 6.

The Applicant notes that Sawyer, which is updated but appears to have a cataloging number with the year 1980 at the top of page 5-40, is a textbook illustration of exactly the sort of prior art *non-conveyor belt-type* gas turbine maintenance approach the present invention advances over. Consistent with the present disclosure’s description of the prior art’s individual, non-sequential work on each gas turbine, which was believed to be not suitable for conveyor line-type processes, Sawyer provides a textbook-type description of repair center operations in which each turbine is individually “worked” – there is nothing in Sawyer which *begins* to hint toward the present invention’s process for disassembling gas turbines and processing the servicing of the turbines’ components by “mov[ing] discontinuously on a cycle through the repair stations or the repair lines” of a conveyor belt-type process. Indeed, the quoted portion of Sawyer has *nothing* whatsoever to do with discontinuous conveyor belt-type processing, *i.e.*, the statement that parts may be “directly reusable,” “scrapped and replaced” or “restored” teaches only that individual parts (from the individually processed gas turbine) are reused/replaced/restored based on a single-point assessment of their condition. Sawyer simply does not disclose (or suggest) any form of the conveyor-type processing of gas turbines recited in amended claim 1.

Because Wortmann, Rathi and Sawyer all fail to disclose or suggest all of the features of the present invention recited in amended claim 1 and its

dependent claims, these claims are patentable over the cited references under § 102. Reconsideration and withdrawal of the pending rejections based on these references is respectfully requested.

4. **The Double Patenting Rejections.** The Applicant has amended claim 1 to incorporate the limitations of its dependent claim 6. Dependent claim 6 recites features of the present invention which are not claimed in co-pending Application No. 10/554,471. Amended claim 1 therefore recites subject matter which is not the "same invention" as in the Burmeister application, thus rendering the double-patenting rejection based on § 101 moot. As to the remaining provisional non-statutory obviousness-type double-patenting rejection, the Applicant is submitting herewith a Terminal Disclaimer. Withdrawal of the pending double-patenting rejections is respectfully requested.

#### **CONCLUSION**

In view of the foregoing, the Applicant submits that claims 1, 3-4 and 6-12 are in condition for allowance. Early and favorable consideration, and issuance of a Notice of Allowance for these claims is respectfully requested.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

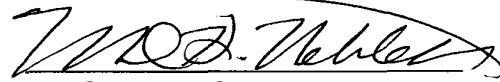
If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and

please charge any deficiency in fees or credit any overpayments to Deposit

Account No. 05-1323 (Docket # 011235.55726US).

Respectfully submitted,

November 30, 2009

A handwritten signature in black ink, appearing to read "Mark H. Neblett", written over a horizontal line.

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